

Energy Transition Dialogues

GI Consultancy
Intelligence
Publishing

INTELLIGENCE BRIEFING

ISSUE 44, MONDAY, APRIL 18th

SCROLL DOWN

[H2 INFRASTRUCTURE](#) [TOP 10 NEOM PROJECTS](#) [NATURE](#) [THIS WEEK'S EVENTS](#)

US Proposes Rules to Enhance and Standardize Climate-Related Disclosures for Investors

The Securities and Exchange Commission has recently proposed rule changes that would require registrants to include certain climate-related disclosures in their registration statements and periodic reports, including information about climate-related risks that are reasonably likely to have a material impact on their business, results of operations, or financial condition, and certain climate-related financial statement metrics in a note to their audited financial statements. The required information about climate-related risks also would include disclosure of a registrant's greenhouse gas emissions, which have become a commonly used metric to assess a registrant's exposure to such risks. "I am pleased to support today's proposal because, if adopted, it would provide investors with consistent, comparable, and decision-useful information for making their investment decisions, and it would provide consistent and clear reporting obligations for issuers," said SEC Chair Gary Gensler. "Our core bargain from the 1930s is that investors get to decide which risks to take, as long as public companies provide full and fair disclosure and are truthful in those disclosures. Today, investors representing literally tens of trillions of dollars support climate-related disclosures because they recognize that climate risks can pose significant financial risks to companies, and investors need reliable information about climate risks to make informed investment decisions. Today's proposal would help issuers more efficiently and effectively disclose these risks and meet investor demand, as many issuers already seek to do. Companies and investors alike would benefit from the clear rules of the road proposed in this release. I believe the SEC has a role to play when there's this level of demand for consistent and comparable information that may affect financial performance. Today's proposal thus is driven by the needs of investors and issuers."



Series Supported By:



The proposed rule changes would require a registrant to disclose information about (1) the registrant's governance of climate-related risks and relevant risk management processes; (2) how any climate-related risks identified by the registrant have had or are likely to have a material impact on its business and consolidated financial statements, which may manifest over the short-, medium-, or long-term; (3) how any identified climate-related risks have affected or are likely to affect the registrant's strategy, business model, and outlook; and (4) the impact of climate-related events (severe weather events and other natural conditions) and transition activities on the line items of a registrant's consolidated financial statements, as well as on the financial estimates and assumptions used in the financial statements.

For registrants that already conduct scenario analysis, have developed transition plans, or publicly set climate-related targets or goals, the proposed amendments would require certain disclosures to enable investors to understand those aspects of the registrants' climate risk management.

The proposed rules also would require a registrant to disclose information about its direct greenhouse gas (GHG) emissions (Scope 1) and indirect emissions from purchased electricity or other forms of energy (Scope 2). In addition, a registrant would be required to disclose GHG emissions from upstream and downstream activities in its value chain (Scope 3), if material or if the registrant has set a GHG emissions target or goal

that includes Scope 3 emissions. These proposals for GHG emissions disclosures would provide investors with decision-useful information to assess a registrant's exposure to, and management of, climate-related risks, and in particular transition risks. The proposed rules would provide a safe harbor for liability from Scope 3 emissions disclosure and an exemption from the Scope 3 emissions disclosure requirement for smaller reporting companies. The proposed disclosures are similar to those that many companies already provide based on broadly accepted disclosure frameworks, such as the Task Force on Climate-Related Financial Disclosures and the Greenhouse Gas Protocol.

Under the proposed rule changes, accelerated filers and large accelerated filers would be required to include an attestation report from an independent attestation service provider covering Scopes 1 and 2 emissions disclosures, with a phase-in over time, to promote the reliability of GHG emissions disclosures for investors. The proposed rules would include a phase-in period for all registrants, with the compliance date dependent on the registrant's filer status, and an additional phase-in period for Scope 3 emissions disclosure.

The proposing release will be published on SEC.gov and in the Federal Register. The comment period will remain open for 30 days after publication in the Federal Register, or 60 days after the date of issuance and publication on sec.gov, whichever period is longer.

(Source: US Securities and Exchange Commission)



Rasso Barstenschlager
General Manager
AI Masaood Power Division

Sustainable Energy Pathways are Fast Becoming Commercially Rewarding!

Five or 10 years ago, the talks about the future were more focused on country-level, pilot strategies. Today, we are talking about physical nuts and bolts, bricks and stones moving, and projects are getting implemented, completed, partially completed or underway with an international focus. It makes sense commercially now in a way that it did not only a few years ago, and users are talking about sustainable energy and the sustainability of business models, which were not discussed until recently.

Some technologies which were previously prototypes are now in early-stage development, while some are already existing, such as electrolysis and fuel cells. What is new today is that people bring them together for certain applications. We as a company talk about hydrogen as a fuel for a vessel operating in Abu Dhabi. It is a commercialized application. Technologies are there, it is just finding the right one for the right fit and purpose.

Companies in the region are feeling the impact of the Net-Zero approach to their business. International companies are now looking at their local partners which are taking part in the process. It is important that the local industry understands this. Being carbon neutral is not a step overnight, it is a journey. If I am participating in making it happen, I am a part of the community.

The commitment to Net Zero targets by government leaders in the region is key to its success. It comes down to leaders of the country believing in their strategies, living their strategies, and trying to get to the results of these strategies. If the government is committed to it, there will be funding in place to make it happen. Partnerships are important, and this has primarily been the business model in the UAE or the GCC countries. There are many projects on a lower scale where it can only work with partnerships, while in some mega projects, international players have a share in it. ADNOC, for example, has put its in-country value in place. These all leads to partnerships.

**Paraphrased Comments*

NATURE: EU Can End Reliance on Russian Energy & Meet Climate Goals

Vladimir Putin's invasion of Ukraine initiated Europe's largest war since the Second World War. The United States and many European nations have responded to the Russian president's actions by cutting trading, financial and scientific links with Russia on a scale never previously seen for a permanent member of the United Nations Security Council.

But Europe's energy needs are stopping many countries from taking even stronger action on the economic front. Russia supplies the European Union with around 40% of its natural gas, as well as about 25% of its oil and almost 50% of its coal. And this trade is continuing. It's a weakness that Putin has exploited. Last week, he passed a decree stating that the gas supplies of "unfriendly" nations would be turned off if customers didn't pay in roubles (rather than US dollars or euros).

Putin's move seems to be intended as both a retaliation against sanctions and an attempt to shore up the rouble; the currency lost around half of its value in the 2 weeks after the 24 February invasion, reaching a record low of roughly 150 roubles to the dollar. It has since rebounded, but the outlook remains volatile.

Tropical forests have big climate benefits beyond carbon storage

European leaders rightly rejected Putin's demands and, for now at least, the Kremlin looks to be backing down. Researchers and analysts think Putin is unlikely to cut off gas supplies because Russia would lose a large fraction of its daily €700-million (US\$771-million) income from the EU — money that it is currently using to support its military. And Russia is not in a position to recoup this loss by redirecting its gas supplies to friendlier countries, because this would necessitate the construction of new infrastructure, which cannot be done quickly.

Whatever happens, the threat is a sign that the EU needs to accelerate its efforts to relinquish its dependence on Russia's fossil fuels. It also underscores something that researchers who study climate, energy and economics have been saying for decades: that climate security and energy security are linked.

Researchers contacted by Nature say that European countries should be able to get through the next winter without Russian imports or power outages. However, to do so would require immediate action on many fronts, including intensive international cooperation to boost imports of natural gas from other countries; the launch of a burst of clean-energy projects; and the introduction of a host of energy-conservation and efficiency

measures, possibly including energy rationing.

If the immediate goal is to keep the lights on, the long-term goal must be decarbonization, which will allow Europe to simultaneously end its dependence on Russia and meet its climate goals. As this week's report from the Intergovernmental Panel on Climate Change indicates (see go.nature.com/3k7vgu0), it means rapidly replacing the fossil fuels that power national and regional electricity systems with renewable alternatives. It also means deploying vehicles that run on electricity or renewably sourced hydrogen, and retrofitting homes and businesses to use less — and produce more — energy. Moreover, a suite of energy and carbon-capture strategies will be needed to clean up heavy industry. None of this will be easy, but if the world wants both a more secure and a cleaner future, we don't have a choice.

'COP26 hasn't solved the problem': scientists react to UN climate deal

Scientists and environmentalists have been making this case for decades, warning governments that fossil fuels destabilize not only the climate, but also geopolitics, by creating dependencies on problematic regimes.

Whether or not European countries decide to stop buying Russian gas, they will almost certainly experience considerable economic pain as prices continue to increase.

With many businesses unable to withstand the coming shocks unaided, and the resulting potential for job losses, governments will have no option but to step in with relief.

European leaders are acutely aware that they are financing the enemy at their gates. They must remain united, and coordinate and accelerate the clean-energy transition — action that will be required if they are to achieve the goal set out in the Paris climate agreement of limiting global warming to 1.5°C above pre-industrial temperatures.

In the short term, the need for energy security will probably see more power than usual generated using fossil fuels, but the overall message cannot now be faulted: European leaders must understand that decarbonization is the answer to both energy and climate security. And if they manage to lay the groundwork for a cleaner future as part of their response to the war in Ukraine, theirs will be a lesson for the world.

(Source: [Nature.com](https://www.nature.com))

UAE Cabinet Plans to Double Contribution of Digital Sector to 20% of GDP

The UAE Digital Economy Strategy has been announced with the goal to double the contribution of the Digital sector to the GDP over the next 10 years.

The UAE formed a Council for Digital Economy chaired by Omar bin Sultan Al Olama, Minister of State for Artificial Intelligence, Digital Economy, and Teleworking Applications. During its meeting, the Cabinet approved the UAE Digital Economy Strategy, which aims to increase the contribution of the digital economy to the GDP from 9.7 percent to 19.4 percent within the next ten years. It also aims to enhance the position of the UAE a hub for digital economy in the region and globally.

The Strategy includes more than thirty initiatives and programmes, targeting 6 sectors and 5 new areas of growth. It will define the digital economy in the country, with a unified mechanism for measuring its growth while measuring its indicators periodically. The strategy will define the priorities of digital economy in the country, ensuring the contribution of all other economic sectors to promote and support the digital economy.

The UAE Government Cabinet approved the establishment of the UAE Council for Digital Economy chaired by Omar bin Sultan Al Olama, Minister of State for Artificial Intelligence, Digital Economy, and

Teleworking Applications. The UAE Council for Digital Economy will support the directions of the country, to double the contribution of the digital economy to the UAE's GDP by the year 2031 and enhances the implementation of the Digital Economy Strategy initiatives in all economic sectors.

The UAE is among the top 25 percent of countries in the most important global digital indicators, where the contribution of the digital economy to the economic sectors of the UAE's GDP is currently 9.7 percent, and to the non-oil GDP 11.7 percent. The Cabinet approved a federal law about the public finances, which will oblige federal authorities to coordinate with the Ministry of Finance to achieve the financial strategy's objectives approved by the Cabinet.

The Cabinet also agreed on the Ministry of Energy and Infrastructure to be the restricting authority for petroleum hazardous materials, the entrusted with the issuance of approvals for the import of these materials, and to follow up their circulation in coordination with licensed local authorities. We approved the country's accession to the International Partnership for Hydrogen and Fuel Cells in the Economy."

Source: UAE Digital Economy Strategy

China Development Bank Bolsters Support for Clean Energy Development in Q1

China Development Bank (CDB) has boosted its financial support for clean energy development in the first quarter of this year (Q1). The CDB had issued 109 billion yuan (about US\$17.12 billion) of loans in the energy sector to support the clean energy development and the green-oriented transition of traditional energy. During this period, a total of 76.5 billion yuan of loans were granted for the development of clean energy including nuclear power, wind power and photovoltaic power. Meanwhile, outstanding loans by the end of Q1 in the clean energy sector went up 48.8 billion yuan from the end of last year, according to the bank.

(Source: Xinhua News)

The Real Deal on Investments in Hydrogen Infrastructure?



Cornelius Matthes
CEO
Dii Desert Energy



Amir Sharifi
Chief Investment Officer, Hy24
Energy Transition Lead, Ardian

Amir Sharifi, CEO of Hy24, and Cornelius Matthes, CEO of Dii Desert Energy, sat down with the Energy Transition Dialogues team to discuss the current progress in the development of Hydrogen infrastructure?

GI: What has been one of the most significant recent announcements regarding the energy transition which grabbed your attention?

Amir: What struck me immediately is the news on Germany and Norway agreeing to build a hydrogen pipeline link. It is an infrastructure topic, but it also has a direct link to these two nations wanting to reduce their dependence on Russian energy supplies considering the current situation in Europe.

Today, gas represents 24% of total energy consumption in Europe and 40% of that comes from Russia. Hydrogen and renewables can replace about 20% of that gas supply. This means various initiatives need to accelerate to drive local energy production on renewables combined with hydrogen.

GI: With these kinds of announcements, do you think that we will see a stronger push of scaling up quicker than expected?

Amir: I think so. One of the key hurdles to the hydrogen economy has always been the cost of it. Hydrogen can be stored, transported in long distances, and can be applied in many applications in the same manner as oil and gas, with zero emissions. On the fundamentals, it is a great solution.

What is happening is that if you no longer depend on the grid and can generate renewable energy with an infrastructure built on purpose for green hydrogen production, effectively the cost of that green hydrogen is now based on current gas prices and with CO2 price, it is more efficient. This can be a game changer for investors because even without public support, that's parity. We expect this to happen in a few years.

GI: Let's talk about the infrastructure from the MENA perspective – what progress are you seeing like the partnership which Germany and Norway have done?

Cornelius: It is important to be flexible and to be bold. In terms of progress both on concrete projects such as the NEOM green hydrogen and government initiatives in

countries such as the UAE, Saudi Arabia, and Egypt, it is likely happening faster than expected.

It is a positive development, especially in boosting international partnership. Several agreements were signed in Abu Dhabi recently by our partners during the hydrogen week in Abu Dhabi. We were instrumental in preparing them on production, supply and trade on making the value chain happen.

Important initiatives were launched during the event, including the MENA Hydrogen Alliance port initiative where Abu Dhabi Ports and Italy's Port of Trieste joined the alliance. This is important because ports will play a crucial role as hydrogen hubs.

Secondly, we rolled out initiatives on certification. It can start with bilateral agreements to coordinate an internationally accepted scheme to make trades happen. We launched a working group on certification, transport and storage. These kinds of international partnerships are crucial because without such schemes, nothing will happen. We need a solid certification on an entire lifecycle of hydrogen.

GI: Amir, Hy24 might be the largest fund dedicated to green hydrogen -- are you seeing investors coming in or has the recent hurdle on energy security dampened the appetite to invest in hydrogen and the energy transition?

Amir: I am pleased to say that we are doing quite well. We target to raise \$1.5 billion and is close to reaching our goal. There is huge appetite to investing into this fund which was initiated as well by industrial corporate groups. We are keen to create an initiative that allows industrial and financial investors come together under a common platform.

We are effectively delivering that promise in line with expectations in terms raising the capital needed, as well as being able to deploy those funds into active opportunities. We also found that our value proposition is interesting for target companies which look at a dedicated hydrogen infrastructure product.

GI: How much of that funding is going to some pure technology solution investments rather than physical infrastructure investment?

Amir: Our fund is not focused on technology and R&D.

CONTINUED ON NEXT PAGE

This is not our purpose. We are there to support the creation of infrastructure and/ or the expansion of infrastructure on the upstream production and downstream, aimed at serving the mobility sector.

GI: When will the industry move on from pilot projects?

Amir: At the global level, there were \$500bn worth of capital expenditure announced by industrial groups in which \$150bn was at a level of maturity. Either at planning or investment decision stage, but still two thirds of that \$500bn were still at an early stage, including R&D. There is huge investment that goes into R&D; however, I believe technology is already mature and has been there for a long time. The main issue is to scale-up what is existing.

These are not new technologies as they have been used for a long time already in the steelmaking industry, with several existing applications. What we want to focus on is to reach a size of more than 100 megawatts for each single project so that we reach a scale where economics are becoming more effective.

GI: Cornelius – the MENA region has an advantage with abundance of natural gas, and hence Blue hydrogen is a natural route to follow – what is holding back regional countries?

Cornelius: I believe countries such as Qatar, UAE, Saudi Arabia, and Egypt, which have significant gas resources will have a natural interest blue Hydrogen.

There are synergies with oil and gas exploration, industrial plants that are existing in the region, and there are certain capabilities. However, I personally doubt that the blue can be ramped up faster. We need to look at the various factors I have mentioned earlier. I never understood really in detail where the real level of maturity is compared to green hydrogen.

Ultimately, markets will decide. It is a combination of technology costs and client demand.

GI: Can the Middle East learn anything from a cross-border pipeline infrastructure that Europe has already indicated?

Cornelius: Europe was ahead of the curve in deploying hydrogen strategies. The objectives are clear, but on the execution and regulation, Europe is a complete

mess. India, for example, has a much more pragmatic scheme and is doing great not only in renewables, but also in green hydrogen. The UAE started with the hydrogen roadmap, but they need to come out soon and then I think these partnerships will be instrumental.

GI: Europe is a mess from a policy point of view -- Do you think policy in Europe is stymieing investment efforts on this front?

Amir: It would help to get more clarity on policies in several areas, particularly on zero-carbon mobility. We need to be able to create corridors where you can have a density of stations as well as guidelines about that. It is also important to have the support from different member states of European countries to establish those charging infrastructure. This is essentially what OEM [companies] need to see to launch their big series of production of heavy-duty vehicles.

GI: Do you see any specific industries coming to the fore ahead of others?

Amir: The steelmaking industry is the one that everyone has on there because you need hydrogen in that industry. The other one is the ammonia and the fuels mechanisms as these are on the demand side of things where effectively you can see that the CO2 penalties that are being imposed on fertilizer companies mean that they need to switch to carbon emissions-free sources of production such hydrogen derivatives.

GI: What would be the next big priority to get this hydrogen engine moving even quicker?

Cornelius: From a European point of view, be pragmatic and get a certification scheme internationally in place. Nord Stream 2 [pipeline] is now €11bn buried under the sea. It will never be used, and North-South hydrogen pipeline is well on. So, be bold. Move today to make these things happen. We need, of course, governments to get such infrastructure off the ground.

Amiri: We go forward towards more transparency and demonstrate that we are really solving the CO2 problem on our side. We are in Article 9 under the Sustainable Finance Disclosure Regulation. We need to demonstrate that we are effectively reducing and abating CO2 and having a certification will make things much easier in this respect, to make things simpler and accelerate the pace.

For more on Hydrogen
CLICK HERE TO ACCESS
OUR LATEST INSIGHTS



Emanuele Bianco Associate Programme Officer IRENA

Green Hydrogen Needs to be Protected as Still in Its Infancy!

Green hydrogen is still an infant industry that needs to be sheltered and protected from competition. While we are seeing some national strategies addressing the need to balance supply and demand, sometimes the strategies are all about export and are not creating a local demand. This may become an issue. The first production of green hydrogen is likely to be consumed locally and if there is no local demand, there is a risk that the supply will not happen because the offtake risk is just too big for investors. What must be done is to plan together, and this has something to do with industrial policy.

Today, 87 megatons of hydrogen are consumed every year. There is a demand for those projects that will decarbonize first, which is of course the industrial sector. There is already an enabling environment for producing green hydrogen. However, without an offtaker, it would be a risk. In addition, standardization,

regulation, and certification of green hydrogen need to be addressed in collaboration with the importing countries.

The story of green hydrogen will not be the story of a cartel, like OPEC with oil. Every region that can produce this type of hydrogen is likely to produce and export it by 2050, and at a similar price point by that period.

Investing in blue hydrogen now will mean creating standard assets in the future, and I do not see investors willing to invest in a technology to use CCS (carbon capture and storage) for 10 to 15 years and see if they are there. They may not be requested anymore in the future.

It is possible that there would be no demand for blue hydrogen by 2050 if it does not achieve very low carbon emissions, with 98% of carbon capture and storage and 0.2% of methane leakage. Maybe if they manage to reach that, it can become an actual consumer item. Otherwise, there is a risk that it would become just a standard asset.

**Paraphrased Comments*



نيوم, NEOM

TOP 10 NEOM Projects 2022-21

1. PIF-Backed Jada Plans to Double Investments to NEOM, says CEO
2. NEOM Ascends on Dubai's OOH Scene
3. Foxconn in Talks to Build \$9bn Factory in Saudi Arabia
4. NEOM's ENOWA Joins PIF in Push to Establish MENA Voluntary Carbon Market
5. NEOM Partners with UNWTO to Drive Saudi Tourism Growth (October 11, 2021)
6. NEOM to Welcome Tourists and Investors by 2024
7. NEOM and KAUST to Create World's Largest Coral Garden
8. NEOM Tech, OneWeb Sign \$200mn JV for Satellite Network
9. NEOM and Volocopter Establish UAE Joint Venture
10. NEOM Ties Up with Asian Football Federation

THIS WEEK EVENTS

Energy Transition Dialogues

GI Consultancy
Intelligence
Publishing

HYDROGEN FULL COURT PRESS

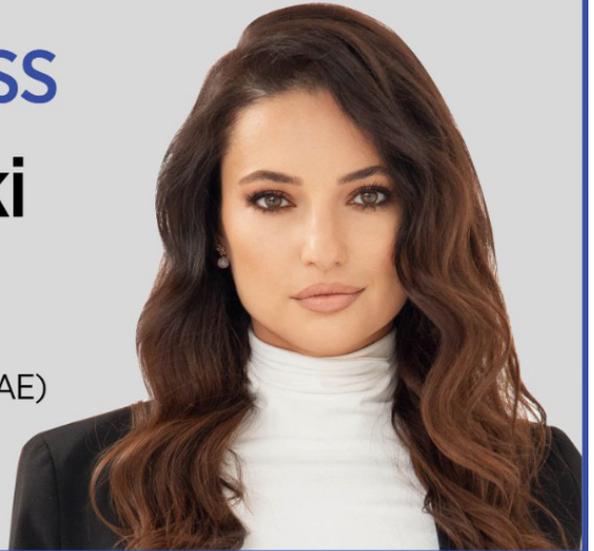
Boyana Achovski

Secretary General
Gas Infrastructure Europe

TUESDAY /// APRIL 19th /// 11:00AM (UAE)

Series Supported By:

**uni
per**



Energy Transition Dialogues

PODCAST WEDNESDAY /// APRIL 20th /// 11:00AM (UAE)

GI Consultancy
Intelligence
Publishing



Jonathon Blackburn
Manager, Partnerships & Transactions
RWE Renewables



Claudia Zuluaga
Founder
The Future Is 50/50



Faris Al Kharusi
Principal Business Transformation Consultant
Petroleum Development Oman

Series Supported By:

**uni
per**

**المشرق
mashreq**

مؤسسة نفط
الشاركة الوطنية
SNOC

Series Supported By:

**uni
per**

**المشرق
mashreq**

مؤسسة نفط
الشاركة الوطنية
SNOC



Consultancy
Intelligence
Publishing